

it is also the product of deliberate economic calculations of profit maximizing firms. In an integrated world, domestic firms develop innovative products and processes with not only the domestic market on their mind, but with imperfectly competitive world markets in view as well. And imperfectly competitive world markets may provide even bigger profits over a longer term to innovative firms. In imperfectly competitive world markets, there are forces that motivate firms to do R&D even without patent protection. Innovations in such an industry are generated by the interplay of forces within the market itself. Therefore, in this view, the case for patent protection is hard to make.

However, the opposite case can also be made. Consider the first argument again. Firms are able to sustain comparative advantage in imperfectly competitive markets largely on account of their investment in innovations. New products or existing products at cheaper prices are a key to comparative advantage in international markets. Firms engage in R&D activities and bring out innovative products continuously. Moreover, when firms are engaged in competition and jostling to sustain "top dog" position in international markets on the basis of innovative products and processes, they want to be assured that their innovations are not imitated for the longest possible time. These firms recognize that due to intense innovative competition from rivals, their products cannot take the benefit of the full legal patent life. Nonetheless, these firms patent their innovations to establish their presence and to be ahead in the market for the next round of competition. In this view, patents serve the purpose of establishing property rights with some rents to go with them. Private markets do provide super-normal profits on large and risky innovations, but to appropriate such rents even imperfectly competitive firms have to fall back on the patent system. And if private markets do not provide such a return in specific cases, firms develop alternative mechanisms and institutions to facilitate making a profit. Joint research ventures or other forms of cooperative research are institutions that emerge in response to such market situations. The institution of patents is the bedrock of such an innovative economy; yet a long patent term is not central to the incentives to investment in most innovations.

The argument that imperfectly competitive international markets generate currents that propel firms to innovate on their own can be further strengthened by recognizing that R&D activity in the economy is also determined by other factors, such as tax policy, the degree of market competition, demand growth and corporate restructuring. Empirical studies show that, along with patents, these factors have significant influence on R&D activity.

Even in the new growth theory outlined above, taking into account beneficial spillovers inherent in innovations and the profits made in imperfectly competitive international markets, patents, though essential, matter less than the diffusion of innovations. In this view, diffusion or imitation of innovations may be much more